Amendments to the Claims

1.-9. (canceled)

10. (currently amended) ~~The~~ A method for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of said compound; ~~and~~

(b) mixing the resulting vapor with a gas, in a ratio, ~~wherein the ratio of vapor to gas is controlled by regulating the gas at a desired rate, monitoring the gas flow rate and stopping energy transferred to said compound during step (a) in the event the desired flow rate is not maintained,~~ to form a desired particle size when a stable concentration of particles in the gas is reached~~.~~, wherein the ratio of vapor to gas is controlled by regulating the gas flow rate within a desired range and wherein the flow rate is monitored and heating of the compound is stopped if the flow rate is not maintained within the desired range; and

(c) administering the resulting aerosol to a patient.

11. (currently amended) The method of claim 10 wherein said patient is alerted with an annunciating signal ~~further comprising using an annunciating signal to alert a patient~~ if said compound is not being vaporized.

12.- 38. (canceled)

39. (currently amended) ~~The~~ A method for generating an aerosol comprising the steps of:

(a) depositing a thin film ~~of~~ comprising a physiologically active compound onto a substrate;

(b) heating the physiologically active compound to vaporize at least a portion of said compound by moving said substrate through an alternating magnetic field ~~to inductively heat the substrate~~, wherein the shape of said alternating magnetic field is controlled by a ferrite core; and

(c) mixing the resulting vapor with a gas that is swept across the thin film, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

40. (original) The method of claim 39 wherein said substrate has a plurality of sections that are heated sequentially.

41. (currently amended) The method of claim 40 wherein said ferrite core has a saturation value such that by changing the drive frequency and amplitude the resulting magnetic field expands to sequentially heat ~~each of~~ said sections ~~and to vaporize the respective portions of said compound~~.

42. (currently amended) The method of claim 41 wherein said ferrite core has a variable air gap so that the resulting magnetic field expands to sequentially heat ~~each of~~ said sections ~~and to vaporize the respective portions of said compound~~ by varying the shape of said air gap of said ferrite core.

43. (original) The method of claim 42 wherein the ferrite core is a toroid shape with a slit cut through it.

44.- 47. (canceled)

48. (currently amended) ~~The~~ <u>A</u> method for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound, contained in a heating-vaporization zone having a restricted cross-sectional area, to vaporize at least a portion of said compound,

(b) mixing the resulting vapor rapidly with a gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached; and

(c) maintaining a pressure drop of restricted gas flow at no greater than 10 inches of water.

49.-123. (canceled)

124. (currently amended) ~~The~~ A method for generating an aerosol comprising the steps of:

(a) depositing a physiologically active compound onto an electrically conductive mesh or screen carrier; and

(b) ~~rapidly~~ heating the carrier by passing a ~~high~~ current across the carrier to vaporize at least a portion of the compound, while simultaneously passing a gas through the carrier thereby mixing the resulting vapor with the gas, in a ratio, to form a desired particle size when a stable concentration of particles in the gas is reached.

125. (original) The method of claim 124 wherein the carrier is a single layer of stainless steel mesh.

126. (currently amended) The method of claim 124 wherein the carrier ~~is made of multi~~ comprises a plurality of layers of mesh ~~material~~.

127. (original) The method of claim 125 wherein the stainless steel mesh is 200 mesh.

128. (currently amended) The method of claim 124 wherein the ~~high~~ current ~~in step (b)~~ is supplied by the discharging of a capacitor.

129. (currently amended) The method of claim 124 wherein the current ~~supplied~~ is passed across the carrier for less than about 20 milliseconds.

130. (currently amended) The method of claim 124 wherein the current ~~supplied~~ is passed across the carrier for ~~from~~ between about 2 and ~~about~~ 10 milliseconds.

131.- 134. (canceled)

135. (new) The method of claim 10 wherein the flow rate of the gas is regulated by the patient.

136. (new) The method of claim 135 wherein the patient is alerted with an annunciating signal when the flow rate is not maintained within the desired range.

137. (new) The method of claim 10 wherein the ratio of vapor to gas is additionally controlled by regulating the rate of vaporization.

138. (new) The method of claim 137 wherein the vaporization rate is controlled by adjusting the heating of said compound.

139. (new) The method of claim 10 wherein the compound is deposited onto a substrate prior to step (a).

140. (new) The method of claim 10 wherein the compound is vaporized at a temperature below the boiling point of the compound by passing gas across the surface of the compound.

141. (new) The method of claim 10 wherein the particle size is between about 1 to 3 microns.

142. (new) The method of claim 10 wherein the particle size is between about 10 to 100 nanometers.

143. (new) The method of claim 10 wherein the gas is air.

144. (new) The method of claim 10 wherein the compound is selected from the group consisting of cannabinoid extracts from cannabis, THC, ketorolac, fentanyl, morphine, testosterone, ibuprofen, codeine, nicotine, Vitamin A, Vitamin E acetate, Vitamin E, nitroglycerin, pilocarpine, mescaline, testosterone enanthate, menthol, phencaramide, methsuximide, eptastigmine, promethazine, procaine, retinol, lidocaine, trimeprazine, isosorbide dinitrate, timolol, methyprylon, etamiphyllin, propoxyphene, salmetrol, vitamin E succinate, methadone, oxprenolol, isoproterenol bitartrate, etaqualone, Vitamin D3, ethambutol, ritodrine, omoconazole, cocaine, lomustine, ketamine, ketoprofen, cilazaprol, propranolol, sufentanil, metaproterenol, pentoxapylline, captopril, loxapine, cyproheptidine,

carvediol, trihexylphenadine, alprostadil, melatonin, testosterone proprionate, valproic acid, acebutolol, terbutaline, diazepam, topiramate, pentobarbital, alfentanil HC1, papaverine, nicergoline, fluconazole, zafirlukast, testosterone acetate, droperidol, atenolol, metoclopramide, enalapril, albuterol, ketotifen, isoproterenol, amidarone HC1, zileuton, midazolam, oxycodone, cilostazol, propofol, nabilone, gabapentin, famotidine, lorezepam, naltrexone, acetaminophen, sumatriptan, bitolterol, nifedipine, phenobarbital, phentolamine, 13-cis retinoic acid, droprenilamine HC1, amlodipine, caffeine, zopiclone, tramadol HC1, pirbuterol, naloxone, meperidine HC1, trimethobenzamide, nalmefene, scopolamine, sildenafil, carbamazepine, procaterol HC1, methysergide, glutathione, olanzapine, zolpidem, levorphanol, buspirone and mixtures thereof.

145. (new) The method of claim 10 wherein the compound is heated to a temperature and for a period of time to cause substantial vaporization.

146. (new) The method of claim 145 wherein the period of time is no greater than about 2 seconds.

147. (new) The method of claim 146 wherein the period of time is between about 1 millisecond to 2 seconds.

148. (new) The method of claim 10 wherein said gas is mixed at a closely controlled flow rate to mix the vapor evenly into the gas.

149. (new) The method of claim 148 wherein the mixing is done to prevent an unacceptable increase in the gas temperature.

150. (new) The method of claim 149 wherein said gas temperature increase is no greater than about 15°C.

151. (new) The method of claim 148 wherein the gas flow rate is maintained substantially constant.

152. (new) The method of claim 151 wherein a laminar gas flow across the surface of the compound is maintained.

153. (new) The method of claim 149 wherein the gas flow across the surface is highly turbulent.

154. (new) The method of claim 10 wherein a thin film comprising the compound is deposited onto a substrate prior to step (a).

155. (new) The method of claim 10 wherein the compound is heated in a container and the resulting vapor is passed from the container into a gas stream through at least one mixing nozzle or orifice.

156. (new) The method of claim 10 wherein the compound is heated by moving the substrate through an alternating magnetic field to inductively heat the substrate.

157. (new) The method of claim 156 wherein said substrate is a metallic foil.

158. (new) The method of claim 157 wherein said substrate is a stainless steel foil.

159. (new) The method of claim 158 wherein said substrate has a low thermal conductivity value.

160. (new) The method of claim 158 wherein said compound is deposited onto said stainless steel foil at a thickness of no greater than about 10 microns.

161. (new) The method of claim 156 wherein the deposited compound has a surface area of 1 to 10 cm^2.

162. (new) The method of claim 156 wherein said alternating magnetic field is at less than about 1MHz.

163. (new) The method of claim 156 wherein the frequency of said alternating magnetic field is between about 100 and 300 kHz.

164. (new) The method of claim 156 wherein a ferrite core is used to control the shape of said alternating magnetic field.

165. (new) The method of claim 164 wherein said substrate has a plurality of sections that are heated sequentially.

166. (new) The method of claim 165 wherein said ferrite core has a saturation value such that by changing the drive frequency and amplitude the resulting magnetic field expands to sequentially heat said sections and to vaporize the respective portions of said compound.

167. (new) The method of claim 166 wherein said ferrite core has a variable air gap so that the resulting magnetic field expands to sequentially heat said sections and to vaporize the respective portions of said compound by varying the shape of said air gap of said ferrite core.

168. (new) The method of claim 167 wherein the ferrite core is a toroid shape with a slit cut through it.

169. (new) The method of claim 10 wherein said physiologically active compound is deposited onto a thermally conductive substrate that is heated by transmitting a thermal energy gradient from one part of said substrate to other parts.

170. (new) The method of claim 10 wherein said compound is contained in a heating-vaporization zone having a restricted cross-sectional area such that the resulting vapor is rapidly mixed into said gas flowing through said zone.

171. (new) The method of claim 170 wherein said particle size is between about 1 to 3 microns.

172. (new) The method of claim 170 wherein said particle size is between about 10 to 100 nanometers.

173. (new) The method of claim 170 wherein the pressure drop of the restricted gas flow is maintained at no greater than 10 inches of water.

174. (new) The method of claim 10 wherein said compound is heated with photon energy.

175. (new) The method of claim 10 wherein said compound is heated with resistive heaters.

176. (new) The method of claim 10 wherein said compound is heated by inductive means.

177. (new) The method of claim 10 wherein said compound is deposited on a substrate having a plurality of sections that are heated sequentially.

178. (new) The method of claim 177 wherein said sections are heated with photon energy.

179. (new) The method of claim 177 wherein said sections are heated with resistive heaters.

180. (new) The method of claim 177 wherein said sections are heated by inductive means.